UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,894	10/27/2000	Anni Rosa Coden	YOR9-2000-0452	5971

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EXAMINER
EHICHIOYA, FRED I

ART UNIT	PAPER NUMBER
2172	12

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/698,894	CODEN ET AL.
	Examiner	Art Unit
	Fred I. Ehichioya	2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *20 February 2004*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1 - 33* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1 - 10, 12, 13, 15 - 18, 20 - 22, and 24 - 33* is/are rejected.
7) ☒ Claim(s) *11,14,19 and 23* is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Response to communications filed on February 20, 2004.

2. Applicant's arguments with respect to claims 1 - 33 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 11, 14, 19 and 23 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

The followings is a statement of reasons for the indication of allowable subject

matter: The prior art of record fails to teach and/or suggest "the step of examining the

information stream further . . ., identifying a second set of documents that correspond to

words found in the text; scoring the returned documents based on a plurality of criteria

and ranking the documents based on their scores".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious
> at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
> was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 3, 4, 18, 24 and 33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 5,500,920 issued to Julian M. Kupiec (hereinafter

"Kupiec") in view U.S. Patent 5,625,767 issued to Brian Bartell et al (hereinafter

"Bartell").

Regarding claims 1, 18, 24 and 33, Kupiec teaches a method for providing

collateral information for inclusion with an information stream, comprising steps of:

examining the information stream to recognize a presence of events that occur in

the information stream (see column 14, lines 15 – 20; "Kupiec discloses the phone

sequence as information stream").

Kupiec does not explicitly teach wherein said events are derived from the

information stream based on one or more predetermined taxonomies;

automatically generating database queries from derived events.

analyzing results of said database queries so as to rank and select said results to

be inserted into the information stream as information that is collateral to said derived

events.

Bartell teaches said events are derived from the information stream based on

one or more predetermined taxonomies (see column 2, lines 11 – 14);

automatically generating database queries from derived events (see column 1,

lines 14 – 35).

analyzing results of said database queries so as to rank and select said results to

be inserted into the information stream as information that is collateral to said derived

events (see column 2, lines 11 - 21).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine teaching of Bartell with the teaching of Kupiec wherein

classification documents under a predetermined set of classes or a predetermined

hierarchical taxonomy create a pool of event where the information is examined. The

motivation is that is that this pool can be analyzed and queried to extract desired

information.

Regarding claim 2, Kupiec teaches the step of analyzing comprises a step of

ranking the database query results based on a plurality of criteria (see column 12, lines

1 – 6 and column 17, lines 1 - 4).

Regarding claim 3, Kupiec teaches the plurality of criteria comprise a score

derived from a free text search of the database using text that is automatically extracted

from the information stream, on a number of named entities appearing in the text and in

the database query results, and on a taxonomy path score, where the taxonomy path

score represents an amount of relatedness between a taxonomy-related information

element found in the text and a tree of the predetermined taxonomies (see column 16,

lines 59 – 67 and column 17, lines 1 - 35).

Regarding claim 4, Bartell teaches the database queries are automatically

generated based on information corresponding to a list that identifies topics in text that

is automatically extracted from the information stream, where the topics correspond to

topic taxonomies of the predetermined taxonomies (see column 1, lines 14 – 35 and

column 2, lines 11 - 14).

6. Claims 5 – 10, 20 – 22, and 25 - 32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kupiec in view of Bartell and further in view of U.S. Patent

5,835,667 issued to Howard D. Wactlar et al (hereinafter "Wactlar").

Regarding claim 5, Kupiec or Bartell does not explicitly teach extracting text.

Wactlar teaches the step of examining comprises a step of automatically

extracting text from the information stream (see column 12, lines 52 - 58).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine teaching of Wactlar with the teaching of Kupiec and

Bartell wherein textual information are extracted from audio/video data. The motivation

is that this data could be analyzed, searched and manipulated for desired segments.

Regarding claim 6, Kupiec teaches segmenting the text into sentences (see

column 24, lines 51 – 55); and

operating on the sentences to identify topics that correspond to predetermined

topic taxonomies, wherein the step of automatically generating database queries

operates on identified topics (see column 16, lines 30 – 36).

Regarding claim 7, Wactlar teaches the step of automatically extracting text from

the information stream comprises a step of operating a voice recognition system (see

column 6, lines 57 - 58)

Regarding claim 8, Wactlar teaches the step of automatically extracting text from the

information stream comprises a step of extracting closed caption text (see column 7,

lines 58 – 62).

Regarding claim 9, Kupiec teaches the step of automatically extracting text from the information stream comprises a step of operating a character recognition system (see column 24, lines 32 – 35).

Regarding claim 10, Wactlar teaches the step of automatically extracting text from the information stream comprises a step of also generating text that is descriptive of a number of human faces that are present in an image conveyed by the information stream (see Figs. A-1 and A-2).

Regarding claim 20, Wactlar teaches examining subsystem comprises at least one unit for automatically extracting text from the information stream, a unit for segmenting the text into sentences and at least one unit for operating on the sentences to identify topics that correspond to topic taxonomies of the predetermined taxonomies, wherein said query generation subsystem automatically generates database queries based at least in part on identified topics (see column 12, lines 57 - 58).

Regarding claim 21, Kupiec teaches text extracting unit comprises at least one of a voice recognition system, a system for extracting closed caption text, and a character recognition system (see column 24, lines 32 – 35).

Regarding claim 22, Wactlar teaches examining subsystem comprises a unit for

generating text that is descriptive of a number of human faces that are present in an

image conveyed by the information stream (see Figs.A-1 and A-2).

Regarding claim 25, Wactlar teaches a step of inserting the collateral information

into the audio/video stream in real time or substantially real time (see column 6, lines 36

– 38).

Regarding claim 26, Wactlar teaches examining includes a step of generating a

speech transcript from at least the audio portion of the audio/visual stream, and wherein

recognized events comprise speech topics (see column 6, lines 41 - 48).

Regarding claim 27, Wactlar teaches the audio/video stream originates as a

television broadcast signal (see column 1, lines 25 – 33).

Regarding claim 28, Wactlar teaches the audio/video stream originates at a meeting,

and further comprising a step of presenting the collateral information to meeting

participants in real time or substantially real time (see column 1, lines 14 – 18 and 30 -

33).

Regarding claim 29, Wactlar teaches the step of presenting comprises a step of

inserting the collateral information into the audio/video stream, and displaying the

audio/video stream to the meeting participants (see Fig.4 step 42).

Regarding claim 30, Wactlar a step of archiving at least the collateral information

(see column 6, lines 46 - 50).

Regarding claim 31, Wactlar teaches the database queries are automatically

generated based on information corresponding to identified topics extracted from the

audio/video stream, where the topics correspond to topic taxonomies of the

predetermined taxonomies (see column 11, lines 50 - 51).

Regarding claim 32, Wactlar the step of examining includes steps of generating a

speech transcript comprised of words from at least the audio portion of the audio/video

stream; segmenting the words into sentences; and operating on the sentences to

identify topics that correspond to topic taxonomies of the predetermined taxonomies,

wherein the step of generating database queries operates on identified topics (see

column 2, lines 44 – 53).

7. Claims 12, 13, 15, 16 and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Wactlar in view of Bartell.

Regarding claim 12, Wactlar teaches a method for providing collateral information

for multiplexing with an information stream, comprising steps of:

converting the information stream into text (see column 6, lines 46 – 50);

extracting data from database search results that is relevant to the information

stream (see column 15, lines 2 – 6);

and multiplexing the data into the information stream for presentation at a destination

of the information stream (see column 15, lines 20 – 67).

Wactlar does not explicitly teach analyzing the text to identify information elements

based on one or more predetermined taxonomies; automatically generating queries

from the information elements for searching at least one database.

Bartell teaches teach analyzing the text to identify information elements based on

one or more predetermined taxonomies (see column 2, lines 11 - 21);

automatically generating queries from the information elements for searching at least

one database (see column 1, lines 14 – 35 and column 2, lines 11 - 14);

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine teaching of Bartell with teaching of Wactlar wherein the queries

are used in selecting desire audio/video stream. The motivation is that automatically

generating these data base query saves time.

Regarding claim 13, Wactlar the step of extracting comprises a step of ranking the

extracted information based on a plurality of criteria, and where the step of multiplexing

uses the ranked data (see column 10, lines 15 - 22).

Regarding claim 15, Wactlar teaches the queries are generated based on

information elements that correspond to a list of information elements identifying topics

in the text being analyzed, where the topics correspond to topic taxonomies of the

predetermined taxonomies (see column 6, line 67 and column 14, lines 46 - 57).

Regarding claim 16, Wactlar teaches the step of analyzing the text comprises steps

of segmenting the text into sentences and a step of operating on the sentences to

identify topics that correspond to topic taxonomies of the predetermined taxonomies,

and wherein the step of automatically generating queries operates on identified topics

(see column 12, lines 57 - 58).

Regarding claim 17, Wactlar teaches the step of analyzing the text comprises steps

of at least segmenting the text into sentences, identifying names of entities within the

text, and a step of operating on the sentences to identify topics that correspond to topic

taxonomies of the predetermined taxonomies, and wherein the step of automatically

generating queries operates on identified topics and ranks the database search results

based at least on numbers of named entities found and on an amount of relatedness

between a taxonomy-related information element identified in the text and a tree of the

predetermined taxonomies (see column 9, lines 41 - 56).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Fred I. Ehichioya whose telephone number is 703-305-

8039. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John E. Breene can be reached on 703-305-9790. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Fred I. Ehichioya
Examiner
Art Unit 2172
March 3, 2004